

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---|---|------------------|---------|------------------|
| | | ((gate or door) same (gas and spring)) and (ald or cvd) and depositS3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and depositS3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:31 |
| S1 | 132 | RTP.ti. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/05/25 10:55 |
| S2 | 8628 | 118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/08/01 09:33 |
| S3 | 8034 | 137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:45 |
| S4 | 2262 | 141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:45 |
| S5 | 456 | 261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:45 |
| S6 | 2572 | 261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:45 |

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|-----|-------|--|---|----|----|---------------------|
| S7 | 7023 | 261/64.1.ccls. or 261/65. ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:45 |
| S8 | 8968 | (ald or cvd) and depositS3 and valve | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:46 |
| S9 | 28323 | (118/715.ccls. or 118/728. ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54. ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131. ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65. ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1. ccls.) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:46 |
| S10 | 1890 | (ald or cvd) and depositS3 and (valve same wall) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:46 |
| S11 | 231 | (ald or cvd) and depositS3 and ((valve and actuator) same wall) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/07 12:46 |

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|-----|---|---|---|----|----|---------------------|
| S15 | 0 | (valve and wall and (deposit \$4 or etch\$4)) and (wafer or substrate or article) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:31 |
| S16 | 0 | (valve and wall and (deposit \$4 or etch\$4)) and (wafer or substrate or article) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:31 |
| S17 | 0 | (wall with "pinch valve") and depositS3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:31 |
| S18 | 0 | (wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and depositS3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:31 |
| S19 | 0 | "diaphragm valve".ti. and "chemical vapor deposition" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:32 |
| S20 | 0 | (118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:32 |

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|-----|---|--|---|----|----|---------------------|
| | | 261/113.ccls. or 261/114.1.ccls.) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3))) | | | | |
| S21 | 0 | (valve and wall and (deposit S4 or etch\$4)) and (((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561.r.ccls. or 137/561.a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:33 |

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|-----|---|--|---|----|----|---------------------|
| | | 261/113.ccls. or 261/114.1.ccls.) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3))) | | | | |
| S22 | 0 | (((gate or door) with (gas and spring)) and (ald or cvd) not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((actuator same (gas and wall)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2003/11/06 14:34 |

cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345..33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345..33.ccls.)))))))) and ((valve and wall and (deposit\$4 or etch\$4)) and (((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345..29.ccls. or 156/345..33.ccls. or 156/345..34.ccls. or 156/345..35.ccls. or 156/345..36.ccls. or 156/345..26.ccls. or 156/345..51.ccls.) or (137/262-264.ccls. or 137/454..2 or 137/560.ccls. or 137/561..r.ccls. or 137/561..a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599..01.ccls. or 137/599..05-599..07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not ((valve same actuator) and (118/715.ccls. or 156/345..33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same

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| | | actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and depositS3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and depositS3)))) | | | |
| S23 | 0 | ((("4319737") or ("5002928") or ("5002928") or ("5002928")).PN. | USPAT; USOCR | OR | OFF ² 2003/11/06 14:51 |
| S24 | 0 | ("5885358").PN. | USPAT; USOCR | OR | OFF 2003/11/06 14:51 |
| S25 | 6 | ((("5002928") or ("5853484") or ("5002928") or ("4319737") or ("5002928") or ("5002928") or ("5002928")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2004/12/15 14:55 |
| S26 | 2 | us-20020129768-s.did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON 2006/03/20 14:53 |
| S27 | 11 | ((("6,228,563") or ("6,333,268") or ("4,872,947") or ("5,000,113") or ("5,362,526") or ("20030045098") or ("20020155632")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2004/12/15 14:56 |
| S28 | 2 | ("4872947").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2004/12/15 14:57 |
| S29 | 19 | ((("5,522,934") or ("5,620,523") or ("5,772,771") or ("6,132,552") or ("6,294,026") or ("6,453,992") or ("5,792,272") or ("20030033980") or ("20040144310")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2004/12/15 14:57 |
| S30 | 2 | ("5,002,928").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2005/07/19 13:27 |
| S31 | 2 | ("5,853,484").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2005/07/19 13:27 |

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|-----|-------|---|---|----|----|---------------------|
| S32 | 9791 | 118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S33 | 7879 | 137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S34 | 2414 | 141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S35 | 472 | 261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S36 | 2608 | 261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S37 | 7165 | 261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S38 | 12740 | (ald or cvd) and depositS3 and valve | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |

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|-----|-------|--|---|----|----|---------------------|
| S39 | 29670 | ((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345..33.ccls. or 156/345..34.ccls. or 156/345..35.ccls. or 156/345..36.ccls. or 156/345..26.ccls. or 156/345..51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561.r.ccls. or 137/561.a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S40 | 2683 | (ald or cvd) and depositS3 and ((valve same wall)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S41 | 393 | (ald or cvd) and depositS3 and ((valve and actuator) same wall) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S42 | 73 | ((gate or door) same (gas and spring)) and (ald or cvd) and depositS3 not (((valve same actuator) and (118/715.ccls. or 156/345..33.ccls.)) or (((ald or cvd) and depositS3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345..33.ccls.))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |

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|-----|-------|--|--|----|----|---------------------|
| S43 | 4 | ((gate or door) with (gas and spring)) and (ald or cvd) not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((actuator same (gas and wall)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))))))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S44 | 70431 | valve and wall and (deposit \$4 or etch\$4) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S45 | 7496 | valve and wall and (deposit \$4 or etch\$4) and flush | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |

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|-----|-------|---|---|----|----|---------------------|
| S46 | 32898 | (valve and wall and (deposit \$4 or etch\$4)) and (wafer or substrate or article) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S47 | 32898 | (valve and wall and (deposit \$4 or etch\$4)) and (wafer or substrate or article) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S48 | 25 | (wall with "pinch valve") and depositS3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S49 | 96 | (wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and depositS3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S50 | 5 | "diaphragm valve".ti. and "chemical vapor deposition" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |
| S51 | 1282 | ((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |

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| | | 261/113.ccls. or 261/114.1.ccls.) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3))) | | | | |
| S52 | 540 | (valve and wall and (deposit S4 or etchS4)) and (((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561.r.ccls. or 137/561.a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:59 |

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|-----|---|--|---|----|----|---------------------|
| | | 261/113.ccls. or 261/114.1.ccls.) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3))) | | | | |
| S53 | 0 | (((gate or door) with (gas and spring)) and (ald or cvd) not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((actuator same (gas and wall)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 13:38 |

cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345..33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345..33.ccls.))))))) and ((valve and wall and (deposit\$4 or etch\$4)) and (((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345..29.ccls. or 156/345..33.ccls. or 156/345..34.ccls. or 156/345..35.ccls. or 156/345..36.ccls. or 156/345..26.ccls. or 156/345..51.ccls.) or (137/262-264.ccls. or 137/454..2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599..01.ccls. or 137/599..05-599..07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not ((valve same actuator) and (118/715.ccls. or 156/345..33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same

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| | | actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and depositS3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and depositS3)))) | | | |
| S54 | 2 | ("4319737" or ("5002928") or ("5002928") or ("5002928")).PN. | USPAT; USOCR | OR | OFF [‡] 2005/07/19 13:38 |
| S55 | 1 | ("5885358").PN. | USPAT; USOCR | OR | OFF 2005/07/19 13:38 |
| S56 | 180 | RTP.ti. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON 2005/07/19 13:38 |
| S57 | 6 | ("5002928") or ("5853484") or ("5002928") or ("4319737") or ("5002928") or ("5002928") or ("5002928")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF [‡] 2005/07/19 13:38 |
| S58 | 2 | us-20020129768-5.did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON 2005/07/19 13:38 |
| S59 | 11 | ("6,228,563") or ("6,333,268") or ("4,872,947") or ("5,000,113") or ("5,362,526") or ("20030045098") or ("20020155632")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF [‡] 2005/07/19 13:38 |
| S60 | 2 | ("4872947").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2005/07/19 13:38 |
| S61 | 19 | ("5,522,934") or ("5,620,523") or ("5,772,771") or ("6,132,552") or ("6,294,026") or ("6,453,992") or ("5,792,272") or ("20030033980") or ("20040144310")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2005/07/19 13:38 |
| S62 | 2 | ("5,002,928").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF 2005/07/19 13:38 |

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| S63 | 4 | ("5951771") or ("5221449").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/19 14:00 |
| S64 | 225 | NGUYEN-ANH-N.in. or CHIAO-STEVE-H.in. or YUAN-XIAOXIONG.in. or LEI-LAWRENCE-CHUNG-LALin. or XIMING.in. or YANG-MICHAEL-X.in. or SEUTTER-SEAN-M.in. or TIOH-TOSHIO.in. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 14:02 |
| S65 | 108 | S64 and valve | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/19 14:03 |
| S66 | 290 | ("20010000866" "20010002280" "20010009140" "20010009695" "20010011526" "20010021589" "20010024387" "20010025979" "20010028924" "20010029094" "20010029891" "20010031562" "20010034123" "20010041250" "20010042799" "20010050039" "20010054730" "20010054769" "20020000598" "20020004293" "20020005556" "20020007790" "20020008297" "20020014647" "20020015790" "20020016084" "20020019121" "20020020869" "20020021544" "20020029092" "20020037630" "20020041931" "20020043666" "20020047151" "20020048635" "20020048880" "20020052097" "20020055235" | US-PGPUB; USPAT; USOCR | OR | ON | 2005/07/19 14:47 |

"20020061612" |
"20020064970" |
"20020068458" |
"20020073924" |
"20020074588" |
"20020076481" |
"20020076507" |
"20020076508" |
"20020076837" |
"20020081826" |
"20020081844" |
"20020090829" |
"20020093046" |
"20020093781" |
"20020094689" |
"20020098627" |
"20020104481" |
"20020105088" |
"20020106536" |
"20020106846" |
"20020109168" |
"20020117399" |
"20020121697" |
"20020135071" |
"20020144655" |
"20020144657" |
"20020146511" |
"20020146895" |
"20020151152" |
"20020153579" |
"20020155722" |
"20020162506" |
"20020164421" |
"20020164423" |
"20020177282" |
"20020182320" |
"20020187256" |
"20020187631" |
"20020197402" |
"20030013320" |
"20030015764" |
"20030031807" |
"20030032281" |
"20030042630" |
"20030049942" |
"20030060057" |
"20030072975" |
"20030082296" |
"20030082300" |
"4058430" | "4389973" |
"4413022" | "4486487" |
"4767494" | "4806321" |
"4813846" | "4829022" |
"4834831") PN, OR
("4838983" | "4838993" |
"4840921" | "4845049" |
"4859625" | "4859627" |

"4861417"|"4876218"
"4917556"|"4927670"
"4931132"|"4951601"
"4960720"|"4975252"
"4993357"|"5000113"
"5013683"|"5028565"
"5082798"|"5085885"
"5091320"|"5130269"
"5166092"|"5173474"
"5186718"|"5205077"
"5225366"|"5234561"
"5246536"|"5250148"
"5254207"|"5256244"
"5259881"|"5270247"
"5278435"|"5281274"
"5286296"|"5290609"
"5290748"|"5294286"
"5296403"|"5300186"
"5306666"|"5311055"
"5316615"|"5316793"
"5330610"|"5336324"
"5338389"|"5348911"
"5374570"|"5395791"
"5438952"|"5439876"
"5441703"|"5443033"
"5443647"|"5455072"
"5458084"|"5469806"
"5480818"|"5483919"
"5484664"|"5503875"
"5521126"|"5526244"
"5527733"|"5532511"
"5540783"|"5580380"
"5601651"|"5609689"
"5616181"|"5637530"
"5641984"|"5644128"
"5667592"|"5674786"
"5693139"|"5695564"
"5705224"|"5707880"
"5711811"|"5730801"
"5730802"|"5747113"
"5749974"|"5788447"
"5788799"|"5796116"
"5801634"|"5807792"
"5830270"|"5835677"
"5851849"|"5855675"
"5855680"|"5856219"
"5858102"|"5866213"
"5866795"|"5879459"
"5882165"|"5882413"
"5904565"|"5916365"
"5923056"|"5923985"
"5925574"|"5928389"
"5942040"|"5947710"
"5972430"|"6001669"
"6013553"|"6015590"
"6015917"|"6020243"
"6025627"|"6036773"

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|-----|------|--|---|----|----|------------------|
| | | "6042652" "6043177" "6051286" "6062798" "6071808").PN. OR ("6084302" "6086677" "6110556" "6113977" "6117244" "6124158" "6130147" "6139700" "6140237" "6140238" "6143659" "6144060" "6158446" "6174377" "6174809" "6197683" "6200893" "6203613" "6206967" "6207302" "6207487" "6238734" "6248605" "6270572" "6271148" "6284646" "6287965" "6291283" "6291876" "6297539" "6299294" "6305314" "6306216" "6316098" "6333260" "6342277" "6348376" "6348386" "6355561" "6358829" "6368954" "6369430" "6372598" "6379748" "6391785" "6391803" "6395650" "6399491" "6416577" "6416822" "6420189" "6420279" "6423619" "6428859" "6447933" "6451119" "6451695" "6452229" "6458701" "6468924" "6475276" "6475910" "6482262" "6482733" "6482740" "6492283" "6511539" "6534395" "6548424").PN. OR ("6846516").URPN. | | | | |
| S67 | 2 | "6620250".pn. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S68 | 9797 | 118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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|-----|-------|--|--|----|----|---------------------|
| S69 | 7879 | 137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571- 576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S70 | 2415 | 141/285-286.ccls. or 141/37. ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302. ccls. or 141/367.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S71 | 472 | 261/127.ccls. or 261/131. ccls. or 261/146-147.ccls. or 261/150.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S72 | 2608 | 261/19-22.ccls. or 261/23.1. ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S73 | 7165 | 261/64.1.ccls. or 261/65. ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100- 102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S74 | 12844 | (ald or cvd) and depositS3 and valve | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S75 | 29677 | (118/715.ccls. or 118/728. ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571- 576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285- 286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54. ccls. or 141/301-302.ccls. or 141/367.ccls.) or | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:53 |

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| | | (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | | | | |
| S76 | 2736 | (ald or cvd) and deposit\$3 and ((valve same wall)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S77 | 444 | (ald or cvd) and deposit\$3 and ((valve and actuator) same wall) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S78 | 73 | ((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S79 | 4 | ((gate or door) with (gas and spring)) and (ald or cvd) not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((actuator same (gas and | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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|-----|-------|--|---|----|----|------------------|
| | | wall)) and (ald or cvd) and depositS3 not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.) or (((ald or cvd) and depositS3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and depositS3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and depositS3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))))))) | | | | |
| S80 | 70589 | valve and wall and (deposit \$4 or etch\$4) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S81 | 7555 | valve and wall and (deposit \$4 or etch\$4) and flush | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S82 | 33025 | (valve and wall and (deposit \$4 or etch\$4)) and (wafer or substrate or article) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S83 | 33025 | (valve and wall and (deposit \$4 or etch\$4)) and (wafer or substrate or article) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S84 | 25 | (wall with "pinch valve") and depositS3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S85 | 96 | (wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and depositS3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S86 | 5 | "diaphragm valve".ti. and "chemical vapor deposition" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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| S87 | 1283 | ((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
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| S88 | 540 | (valve and wall and (deposit\$4 or etch\$4)) and (((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)) and (((ald or cvd) and deposit\$3 and (valve same wall)) or ((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3)))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
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| S89 | 0 | (((gate or door) with (gas and spring)) and (ald or cvd) not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((actuator same (gas and wall)) and (ald or cvd) and deposit\$3 not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))))))) and ((valve and wall and (deposit\$4 or etch\$4)) and (((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
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| | | or 137/561r.ccls. or 137/561a.ccls. or 137/571- 576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285- 286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54. ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131. ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19- 22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65. ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100- 102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1. ccls.)) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3)))) | | | | |
| S90 | 2 | ((("4319737") or ("5002928") or ("5002928") or ("5002928")).PN. | USPAT; USOCR | OR | OFF ² | 2005/07/24 14:45 |
| S91 | 1 | ("5885358").PN. | USPAT; USOCR | OR | OFF ² | 2005/07/24 14:45 |
| S92 | 181 | RTP.ti. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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| S93 | 6 | ((“5002928”) or (“5853484”) or (“5002928”) or (“4319737”) or (“5002928”) or (“5002928”)).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S94 | 2 | us-20020129768-s.did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S95 | 11 | ((“6.228,563”) or (“6.333,268”) or (“4.872,947”) or (“5.000,113”) or (“5.362,526”) or (“20030045098”) or (“20020155632”)).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S96 | 2 | (“4872947”).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S97 | 19 | ((“5.522,934”) or (“5.620,523”) or (“5.772,771”) or (“6.132,552”) or (“6.294,026”) or (“6.453,992”) or (“5.792,272”) or (“20030033980”) or (“20040144310”)).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S98 | 2 | (“5.002,928”).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S99 | 2 | (“5.853,484”).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S100 | 9797 | 118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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| S101 | 7879 | 137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571- 576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S102 | 2415 | 141/285-286.ccls. or 141/37. ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302. ccls. or 141/367.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S103 | 472 | 261/127.ccls. or 261/131. ccls. or 261/146-147.ccls. or 261/150.ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S104 | 2608 | 261/19-22.ccls. or 261/23.1. ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S105 | 7165 | 261/64.1.ccls. or 261/65. ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100- 102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1. ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S106 | 12844 | (ald or cvd) and depositS3 and valve | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S107 | 29677 | (118/715.ccls. or 118/728. ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561r.ccls. or 137/561a.ccls. or 137/571- 576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285- 286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54. ccls. or 141/301-302.ccls. or 141/367.ccls.) or | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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| | | (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.) | | | | |
| S108 | 2736 | (ald or cvd) and deposit\$3 and ((valve same wall)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S109 | 444 | (ald or cvd) and deposit\$3 and ((valve and actuator) same wall) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S110 | 73 | ((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S111 | 4 | ((gate or door) with (gas and spring)) and (ald or cvd) not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((actuator same (gas and | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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| | | wall)) and (ald or cvd) and depositS3 not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.) or (((ald or cvd) and depositS3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((gate or door) same (gas and spring)) and (ald or cvd) and depositS3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and depositS3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.))))))) | | | | |
| S112 | 70589 | valve and wall and (deposit \$4 or etch\$4) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S113 | 7555 | valve and wall and (deposit \$4 or etch\$4) and flush | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S114 | 33025 | (valve and wall and (deposit \$4 or etch\$4)) and (wafer or substrate or article) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S115 | 33025 | (valve and wall and (deposit \$4 or etch\$4)) and (wafer or substrate or article) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S116 | 25 | (wall with "pinch valve") and depositS3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S117 | 96 | (wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and depositS3) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S118 | 5 | "diaphragm valve".ti. and "chemical vapor deposition" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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| S119 | 1283 | ((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561.r.ccls. or 137/561a.ccls. or 137/571-576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285-286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54.ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131.ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19-22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65.ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100-102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1.ccls.)) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))))) or (((wall with "pinch valve") and deposit\$3) or (((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3))) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
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| | | or 137/561r.ccls. or 137/561a.ccls. or 137/571- 576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285- 286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54. ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131. ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19- 22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65. ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100- 102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1. ccls.)) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and ((valve and actuator) same wall)) not ((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3)))) | | | | |
| S121 | 2 | ((("4319737") or ("5002928") or ("5002928") or ("5002928")).PN. | USPAT; USOCR | OR | OFF ² | 2005/07/24 14:45 |
| S122 | 1 | ("5885358").PN. | USPAT; USOCR | OR | OFF ² | 2005/07/24 14:45 |
| S123 | 6 | ((("5002928") or ("5853484") or ("5002928") or ("4319737") or ("5002928") or ("5002928") or ("5002928")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF ² | 2005/07/24 14:45 |

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| S124 | 2 | us-20020129768-\$ did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S125 | 11 | ("6.228.563") or ("6.333.268") or ("4.872.947") or ("5.000.113") or ("5.362.526") or ("20030045098") or ("20020155632").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S126 | 2 | ("4872947").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S127 | 19 | ("5.522.934") or ("5.620.523") or ("5.772.771") or ("6.132.552") or ("6.294.026") or ("6.453.992") or ("5.792.272") or ("20030033980") or ("20040144310").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S128 | 2 | ("5.002.928").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S129 | 181 | RTP.ti. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S130 | 540 | (valve and wall and (deposit \$4 or etch\$4)) and (((118/715.ccls. or 118/728.ccls. or 118/50.ccls. or 156/345.29.ccls. or 156/345.33.ccls. or 156/345.34.ccls. or 156/345.35.ccls. or 156/345.36.ccls. or 156/345.26.ccls. or 156/345.51.ccls.) or (137/262-264.ccls. or 137/454.2 or 137/560.ccls. or 137/561.r.ccls. or 137/561.a.ccls. or 137/571- 576.ccls. or 137/590.ccls. or 137/594-596.ccls. or 137/599.01.ccls. or 137/599.05-599.07.ccls. or 137/602.ccls.) or (141/285- 286.ccls. or 141/37.ccls. or 141/44-47.ccls. or 141/54. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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| | | ccls. or 141/301-302.ccls. or 141/367.ccls.) or (261/127.ccls. or 261/131. ccls. or 261/146-147.ccls. or 261/150.ccls.) or (261/19- 22.ccls. or 261/23.1.ccls. or 261/40.ccls. or 261/42.ccls. or 261/62-63.ccls.) or (261/64.1.ccls. or 261/65. ccls. or 261/75-76.ccls. or 261/94-96.ccls. or 261/100- 102.ccls. or 261/105.ccls. or 261/108-109.ccls. or 261/113.ccls. or 261/114.1. ccls.)) and (((ald or cvd) and deposit\$3 and (valve same wall)) or (((gate or door) same (gas and spring)) and (ald or cvd) and deposit\$3 not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)) or (((ald or cvd) and deposit\$3 and (valve and actuator) same wall)) not (((valve same actuator) and (118/715.ccls. or 156/345.33.ccls.)))) or ((wall with "pinch valve") and deposit\$3) or ((wall with "pinch valve") and (reactor or chamber or vessel or tank) not ((wall with "pinch valve") and deposit\$3)))) | | | | |
| S131 | 4 | (("5951771") or ("5221449")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 14:45 |
| S132 | 225 | NGUYEN-ANH-N.in. or CHIAO-STEVE-H.in. or YUAN-XIAOXIONG.in. or LEI-LAWRENCE- CHUNG-LAI.in. or XI- MING.in. or YANG- MICHAEL-X.in. or SEUTTER-SEAN-M.in. or ITOH-TOSHIQ.in. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |
| S133 | 108 | S132 and valve | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:45 |

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| S135 | 4047 | S75 and ((valve near/2 seat) with (chamber or reactor)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:54 |
| S136 | 7 | S75 and ((pinch adj1 valve) with (chamber or reactor)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 14:58 |
| S137 | 42 | S75 and (pinch adj1 valve) not S136 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 15:00 |
| S138 | 747 | S75 and (valve with (seat and wall)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 15:01 |
| S139 | 41 | S138 and (wafer or substrate) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 15:14 |
| S140 | 2 | "20030116087" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 15:17 |
| S141 | 2 | "6916398".pn. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/07/24 15:17 |

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| S143 | 1 | "6056823".pn. | US-PGPUB; USPAT; USOCR | OR | ON | 2005/07/24 15:27 |
| S144 | 16 | ("118"/\$.ccls. or "156"/\$.ccls.) and (wafer or substrate) and microvalve and (chamber or reactor or vessel) | US-PGPUB; USPAT; USOCR | OR | ON | 2005/07/24 16:06 |
| S145 | 7 | ("118"/\$.ccls. or "156"/\$.ccls.) and (wafer or substrate) and (conical adj1 valve) and (chamber or reactor or vessel) | US-PGPUB; USPAT; USOCR | OR | ON | 2005/07/24 16:09 |
| S146 | 0 | ("118"/\$.ccls. or "156"/\$.ccls.) and (wafer or substrate) and (conical adj1 valve) and (chamber or reactor or vessel) | US-PGPUB; USPAT; USOCR | OR | ON | 2005/07/24 16:09 |

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|------|----|--|---|----|-----|------------------|
| S147 | 34 | ("118"/\$.ccls. or "156"/\$.ccls.) and (wafer or substrate) and (conical with valve) and (chamber or reactor or vessel) | US-PGPUB; USPAT; USOCR | OR | ON | 2005/07/24 16:09 |
| S148 | 27 | ("3730134" l "4157931" l "4201149" l "4519846" l "4640846" l "4889069" l "5009185" l "5234499"). PN. OR ("5439519"). URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2005/07/24 16:19 |
| S149 | 2 | ("20030119328").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 16:20 |
| S150 | 2 | ("5225366").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/07/24 16:20 |
| S151 | 1 | ("4,747,367").PN. | USPAT | OR | OFF | 2006/03/20 14:17 |
| S152 | 1 | ("5,002,928").PN. | USPAT | OR | OFF | 2006/03/20 14:17 |
| S153 | 2 | "4,747,367".did. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/03/20 14:54 |
| S154 | 8 | ((("4747367") or ("5002928") or ("4319737") or ("5853484")).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/08/01 09:34 |
| S155 | 14 | (US-20030116087-S or US-20050139160-S or US-20050008779-S or US-20030172872-S or US-20030190497-S or US-20030190423-S).did. or (US-6620250-S or US-6478923-S or US-6224681-S or US-6846516-S or US-4732124-S or US-5033538-S or US-5439519-S or US-5567267-S).did. | US-PGPUB; USPAT | OR | ON | 2007/03/08 10:15 |
| S156 | 2 | ("4747367").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2007/03/08 10:19 |
| S157 | 2 | ("5002928").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2007/03/08 10:19 |

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|------|-----|--|--|----|-----|---------------------|
| S158 | 2 | ("4319737").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2007/03/08 10:21 |
| S159 | 2 | ("5,853,484").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2007/03/08 10:21 |
| S160 | 18 | (US-20030116087-\$ or US-20050139160-\$ or US-20050008779-\$ or US-20030172872-\$ or US-20030190497-\$ or US-20030190423-\$).did. or (US-6620250-\$ or US-6478923-\$ or US-6224681-\$ or US-6846516-\$ or US-4732124-\$ or US-5033538-\$ or US-5439519-\$ or US-5567267-\$ or US-4747367-\$ or US-5002928-\$ or US-4319737-\$ or US-5853484-\$).did. | US-PGPUB; USPAT | OR | ON | 2007/03/08 10:26 |
| S161 | 2 | ("5,002,928").PN. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2008/12/12 16:46 |
| S162 | 18 | (US-20030116087-\$ or US-20050139160-\$ or US-20050008779-\$ or US-20030172872-\$ or US-20030190497-\$ or US-20030190423-\$).did. or (US-6620250-\$ or US-6478923-\$ or US-6224681-\$ or US-6846516-\$ or US-4732124-\$ or US-5033538-\$ or US-5439519-\$ or US-5567267-\$ or US-4747367-\$ or US-5002928-\$ or US-4319737-\$ or US-5853484-\$).did. | US-PGPUB; USPAT | OR | ON | 2008/12/14 22:21 |
| S163 | 33 | (wafer or substrate) and (valve and showerhead) and (chamber or reactor) | EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/12/14 22:35 |
| S164 | 192 | (wafer or substrate) and ("needle valve") | EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/12/14 22:40 |
| S165 | 0 | zervigon.xp. | EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/12/14 22:53 |

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|------|----|---|--|----|-----|---------------------|
| S166 | 71 | zervigon.xp. | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2008/12/14 22:53 |
| S167 | 23 | ("2003000469" "20030019580" "3589394" "3610278" "4761269" "4780169" "5108535" "5174825" "5269847" "5286331" "5496408" "5589110" "5683517" "5728223" "5746875" "5853484" "5885358" "6286454" "6315858" "6446573"). PN, OR ("6872259"). URPN. | US-PGPUB; USPAT; USOCR | OR | ON | 2008/12/14 22:56 |
| S168 | 20 | (US-20030116087-S or US- 20050139160-S or US- 20050008779-S or US- 20030172872-S or US- 20030190497-S or US- 20030190423-S).did. or (US-6620250-S or US- 6478923-S or US-6224681- S or US-6846516-S or US- 4732124-S or US-5033538- S or US-5439519-S or US- 5567267-S or US-4747367- S or US-5002928-S or US- 4319737-S or US-5853484- S or US-6446573-S or US- 4761269-S).did. | US-PGPUB; USPAT | OR | ON | 2008/12/18 14:59 |
| S169 | 2 | ("6331212").PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2008/12/18 15:07 |
| S170 | 4 | ((("6331212") or (("4761269"))).PN. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2008/12/18 15:09 |

12/19/08 3:44:44 PM

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